

**ABSTRACT**

An environmental control system for e.g. an aircraft cabin comprises ambient air pressurising  
5 compressor (16), air cooling device (30), an Air expanding turbine (26), all mounted for rotation on a common shaft (20). A main engine driven electric motor (16) provides the rotary power. An extra expansion turbine (26) is provided on shaft (20) and is connected to receive ejected, used air  
10 from cabin (18) and be driven thereby. The rotary force derived from turbine (26) is transferred via shaft (20) to the electric motor (16), thus reducing the power which otherwise would be needed from the aircraft main power plant.